

EDUCATION & HONORS

Indiana University - Luddy School of Informatics, Computing, and Engineering – Bloomington, INMay 2025

Bachelor of Science in Computer ScienceGPA: 3.73/4.0 - Cumulative, 4.0/4.0 - Math

Major: Computer Science, AI/ML Concentration | Minor: Mathematics

Honors and Awards:

- SpartaHack 8 Hackathon:** Achieved top 10 out of 326 teams for collaborating to craft [KnowledgeMap](#), a web app to visualize related keywords graphically with interactive nodes, built with Flask & JS, hosted on a personal server
  - 3+1 MSIS and KPMG Case Competition:** Secured 4<sup>th</sup> place out of 26 teams, earning a \$1,500 scholarship; [slide deck](#)
  - Luddy Direct Admit Scholarship:** Awarded a \$4,000 grant for strong academics and guiding young health enthusiasts
  - Luddy Dean’s List (X2):** Recognized by Dean Millunchick for a high GPA with full-time & majority technical courses
- Object Oriented Design Tutor – Bloomington, INApril 2023 - Present
- Recruited and handpicked by faculty out of 250+ students to instruct first-years in object-oriented design patterns
  - Stimulated interactive whiteboarding sessions to convey complex topics in object-oriented design with tailored lessons

WORK EXPERIENCE

Louisiana State University - Center for Computation & Technology – Baton Rouge, LAMay 2023 – August 2023

Research Intern

- Investigated current literature on generative deep learning methods such as variational auto encoders to be pared with genetic algorithms to improve performance on industry standard data sets in learned and tangled latent spaces
- Iteratively engineered generative models in Tensor Flow & Docker; documented methods to ensure reproduceable results
- Orchestrated weekly presentations with principal investigators to display progress, address bottlenecks, and future aims

Amplio Financial – Indianapolis, INOctober 2020 – February 2021

Web and Marketing Intern

- Researched WordPress, Shopify, and Meta Ads, to empower and inform clients about available digital marketing tech
- Utilized the Adobe suite to create custom logos, YouTube thumbnails, and Instagram templates, increasing conversions
- Sourced real estate buyers and enhanced home liquidation rates by investigating historical State Lands data for clients

DEVELOPMENT EXPERIENCE & LEADERSHIP

Luddy Undergraduate Research – Bloomington, INAugust 2021 – May 2023

Researcher

- Overhauled data collection of API documentation screenshots across multiple services, reducing run time by 200% by using asynchronous capture scripts with Playwright in tandem with a third-party OCR model; acknowledged in paper
- Predicted first base line notes from melodies by converting MIDI files into vectors for CNN, achieving 90% accuracy

Emerging Technologies Committee of Luddy – Bloomington, INMay 2022 – August 2022

Founder

- Fostered a research and tech culture on campus by securing funding of \$8000 dollars per speaking event and utilizing the perspectives of researchers, start-ups, and industry leaders to give insight into modern and innovative tech-related fields

CashMap - Location Based Expense Tracker – Bloomington, IN

Co-Developer

- Built intuitive IOS application with Swift to track expenses geographically, improving user budget awareness and control
- Created Widget for at-a-glance analytics about user spending with Widget Kit and CoreData, boosting app engagement

Spotify Artists Musical Feature Niche Analysis – Bloomington, IN

Solo Developer

- Extracted song features using Spotify's API, Spotipy library; Employed a multi-linear regression model in R to quantify the impact of different song attributes on an artist's music, discovering musical niches and their defining characteristics

Neural Network from Scratch – Bloomington, IN

Solo Developer

- Developed a multi-layer perceptron from scratch with only NumPy and achieved 96% accuracy on the UCI wine dataset

TECHNICAL SKILLS

Languages	Libraries	Tools
Python, Swift, Java, R, HTML, CSS	TensorFlow, NumPy, Scikit-learn, Pandas, Matplotlib, Swift UI, Pytorch, Flask, Playwright, Rpart, JUnit, Tailwind CSS	Git, GitHub, Unix Based Systems, Xcode, VS Code, IntelliJ, Docker